



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,598	06/07/2000	Erik A. Colban	032292-020	9558

27045 7590 10/06/2004

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

NGUYEN, TOAN D

ART UNIT PAPER NUMBER

2665

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,598

Applicant(s)

COLBAN, ERIK A.

Examiner

Toan D Nguyen

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al (US 6,230,024).

For claim 22, Wang et al disclose voice to digital fax transmission, comprising:

within a mobile fax terminal (figure 1, references 102 and 104, col. 3 lines 8-14),

performing the steps of:

receiving fax data from a fax machine (figure 1, reference 124) via standard fax protocol (col. 3 lines 45-47);

mapping the fax data onto Transmission Control Protocol (TCP or User Datagram Protocol (UDP) packets (figure 2, reference 226, col. 4 lines 56-57);

mapping the TCP or UDP packets onto Radio Link Protocol (RLP) frames (figure 2, reference 226, col. 4 lines 56-57); and

transmitting the RLP frames to an external radio telecommunication network (figure 2, reference 230, col. 4 lines 66-67).

Claim Rejections - 35 USC § 103

Art Unit: 2665

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al (US 6,230,024) in view of Sicher et al (US 6,385,195).

For claim 21, Wang et al disclose voice to digital fax transmission, comprising:

a mobile fax terminal comprising:

means for receiving fax data from a fax machine (figure 1, reference 124) via standard fax protocol (col. 3 lines 45-47);

means for mapping the fax data onto Transmission Control Protocol (TCP or User Datagram Protocol (UDP) packets (figure 2, reference 226, col. 4 lines 56-57);

means for mapping the TCP or UDP packets onto Radio Link Protocol (RLP) frames (figure 2, reference 226, col. 4 lines 56-57); and

means for transmitting the RLP frames to an external radio telecommunication network (figure 2, reference 230, col. 4 lines 66-67).

However, Wang et al do not disclose:

an interworking function (IWF) in the network comprising:

means for receiving the RLP frames from the mobile fax terminal;

means for mapping the RLP frames to TCP or UDP packets; and

means for sending the TCP or UDP packets to a fax gateway; and

a fax gateway comprising:

means for receiving the TCP or UDP packets from the IWF;

means for mapping the packets to standard fax data; and

means for sending the fax data to a destination fax machine via standard fax protocols.

In an analogous art, Sicher et al disclose:

an interworking function (IWF) (figure 2, reference E-IWF 14) in the network comprising:

means for receiving the RLP frames from the mobile fax terminal (figure 7, reference 61) (figure 8, reference 86, col. 10 lines 8-9);

means for mapping the RLP frames to TCP or UDP packets (figure 8, references 87-88, col. 10 lines 11-16); and

means for sending the TCP or UDP packets to a fax gateway (figure 8, reference 71) (figure 8, references 89-90, col. 10 lines 17-20); and

a fax gateway (figure 7, reference 71) comprising:

means for receiving the TCP or UDP packets from the IWF (col. 9 lines 50-51);

means for mapping the packets to standard fax data (figure 8, reference 90, col. 10 lines 19-21); and

means for sending the fax data to a destination fax machine via standard fax protocols (figure 8, reference 91, col. 10 lines 21-24).

One skilled in the art would have recognized a an interworking function (IWF) to use the teachings of Sicher et al in the system of Wang et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the interworking function

Art Unit: 2665

(IWF) as taught by Sicher et al in Wang et al's system with the motivation being to support a method of direct digital interworking between a radio tele-communications network and standard Internet Protocol (IP) routers (Abstract lines 1-4).

For claim 23, Wang et al do not disclose:

within an interworking function (IWF) in the network, performing the steps of:

receiving the RLP frames from the mobile fax terminal;

mapping the RLP frames to TCP or UDP packets; and

sending the TCP or UDP packets to a fax gateway.

In an analogous art, Sicher et al disclose:

within an interworking function (IWF) (figure 2, reference E-IWF 14) in the network, performing the steps of:

receiving the RLP frames from the mobile fax terminal (figure 7, reference 61) (figure 8, reference 86, col. 10 lines 8-9);

mapping the RLP frames to TCP or UDP packets (figure 8, references 87-88, col. 10 lines 11-16); and

sending the TCP or UDP packets to a fax gateway (figure 8, reference 71) (figure 8, references 89-90, col. 10 lines 17-20).

One skilled in the art would have recognized a an interworking function (IWF) to use the teachings of Sicher et al in the system of Wang et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the interworking function (IWF) as taught by Sicher et al in Wang et al's system with the motivation being to support a

Art Unit: 2665

method of direct digital interworking between a radio telecommunications network and standard Internet Protocol (IP) routers (Abstract lines 1-4).

For claim 24, Wang et al do not disclose:

within the fax gateway, performing the steps of:

receiving the TCP or UDP packets from the IWF;

mapping the packets to standard fax data; and

sending the fax data to a destination fax machine via standard fax protocols.

In an analogous art, Sicher et al disclose:

within the fax gateway (figure 7, reference 71), performing the steps of:

receiving the TCP or UDP packets from the IWF (col. 9 lines 50-51);

mapping the packets to standard fax data (figure 8, reference 90, col. 10 lines 19-21); and

sending the fax data to a destination fax machine via standard fax protocols (figure 8, reference 91, col. 10 lines 21-24).

One skilled in the art would have recognized a fax gateway to use the teachings of Sicher et al in the system of Wang et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the fax gateway as taught by Sicher et al in Wang et al's system with the motivation being to allow a standard fax machine to use the public Internet or a private intranet to transmit fax information to another fax machine or application (col. 9 lines 51-54).

Allowable Subject Matter

65. Claims 16-20 are allowed.

Art Unit: 2665

The following is an examiner's statement of reasons for allowance:

Regarding claim 16, the prior art fails to teach a combination of the steps of:

a mobile phone portion connected to the fax adapter via an Internet Protocol (IP)-based interface;

wherein the fax adapter includes;

a mapping function that maps the fax data onto Transmission Control Protocol (TCP) or User Datagram Protocol UDP) packets, in the specific combination as recited in the claim.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN
TN



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600